THE COMMUNITY AND TUBERCULOSIS.

BY BEVERLEY ROBINSON, M.D.
NEW YORK CITY.

THROUGHOUT the United States a fair appreciation is now awakened to our duties towards consumptives. This is shown by broad and enlightened work of Health Boards, by stimulating help from many physicians who have strongly urged their needs, and by contributions of money and effort by laymen and laywomen to build sanatoria.

The sanatoria are of two kinds essentially. First, those where the relatively well-to-do may secure the best care and treatment now recognised, for which, as a rule, a suitable pecuniary return is made. Second, those where the poor, homeless, houseless, friendless patient goes ulitmately to end his days with greater comfort to himself and with less risk to relatives, friends, and people generally. In the latter instance, and as much as may be, provision is also made to receive incipient and slightly advanced cases, which are the more acceptable ones, as they are by far the more curable. In the private sanatoria, provision is especially made for the latter sort of cases, and apparently for much the same reason. Within very restricted limits accommodation is also provided for the care of those who are absolutely poor. What has been done by us hitherto for the dwellers of our tenement houses is very little compared with what has been accomplished abroad—in Germany, France, England; and as nothing in

view of the great and urgent necessities of many thousands of diseased. Happily, some munificent donors have already arisen, and in the Phipps endowment notably we appreciate with gratitude the spirit and doing of generous and instructed private philanthropy. In appeals to State legislatures and municipalities by boards of health, by physicians, and by citizens for sanatoria to be put under judicious public control, and solely for the benefit of the very poor, we recognise the advent of a better era for very many tuberculous patients hitherto relatively neglected or ignored. Adequate provision, doubtless, will be made iu the near future in the same or different institutions for the best care of such patients, according to the stage of the disease. To those who have a probability of cure under good ambient conditions all will be done to affect it. To those who at present, alas! are well nigh hopeless cases, their latter days will be measurably soothed and comforted.

To me the idea of sanatoria for the very poor brings joy and gladness, because I see in it prospect of cure for many, prospect of consolation for many more. To be sure, it will perhaps be a long while before we may legitimately hope, even with large and numerous public sanatoria buildings, to meet all requirements of the needy consumptives. But with their existence we shall have accomplished a great and noble though necessarily limited work, and we shall be able effectively to educate a large and increasing number of sufferers, so that when they return to their homes, stationary, improved, or cured, they will know better how to care for themselves, and how to protect others.

As to private sanatoria, especially for the favoured ones, and with one or two notable exceptions, I frankly confess I do not feel that the return of health and strength to relatively few patients justifies wholly the outlay of money,

labour, notoriety, in behalf of these institutions. I may be misinformed or in error; but in many ways I believe such patients, with their own physicians, and with large, sunny well-ventilated rooms, appropriate surroundings, good food, care and discipline, in a well-selected location in the country, would enjoy advantages not fairly counterbalanced by excessive *doing* and over *minute* regulations (often calculated to do more harm than good) of private sanatoria.

What shall I say for home treatment? To the vast number in our midst at present it is only the available treatment. Even if we could persuade very many among the poor to leave their homes and go elsewhere, there is no institution yet open to receive them. In the City of New York there is now accommodation approximately for 1,000 of her consumptive poor—there is requirement for 10,000 to 20,000 more! Fortunately the day of specifics is passing for all honest and intelligent practitioners. It is useless for enthusiastic or over-zealous men to laud and magnify (after very moderate or wholly insufficient experience and cases) this or that drug, this or that preparation, or means of cure. Hygiene in its broadest, best sense is, after all, our main reliance; and statistics based upon other means, no matter how favourably interpreted by their warm advocates, meet with little cordial response from those who have learned by long experience to become properly sceptical. Most of us now look forward to the bright day when, perhaps, a really efficacious anti-tuberculous serum shall be discovered—not a mere destroyer of bacteria; and perhaps with this destruction, great or irremedial injury to the blood, or other fluid of the economy; but rather to a serum which shall quickly neutralise or destroy those hitherto unknown toxins, of which the bacteria are but the formed and visible evidence of their presence and action. Better still, may we not even legitimately hope

that a serum will be discovered which shall produce, when inoculated, almost absolute immunity from the development of tuberculosis. Surely the admirable researches of Dr. E. L. Trudeau at his Saranac Sanatorium point in the not distant future, perhaps, to the practical realisation of this great hope for the race.*

What we want, what we insist upon for our poor, is better ventilation, more and better air, more sunlight, improved plumbing, greater cleanliness in their homes. To these essentials we add good food, properly prepared and served, a pure and plentiful supply of milk and water. Much of all this means, of necessity, therefore, improved tenement houses. and under no possible pretext to allow any unjust, iniquitous laws to be passed which would interfere with our ideals, or oblige us to take a step backward in our march of progress and greater civilisation. What shall we gain by following out such a plan? First of all, we shall secure a greater resistance on the part of a susceptible or already diseased individual to attack or further inroads of disease. And in this way we shall be doing much towards the ultimate inhibition of tuberculosis. Such an outline as that given above may be helped by judicious medical treatment, and this may be effected in the homes and in the dispensaries.

My statement has been proven already, I am glad to say (in a limited number of cases up to the present time), by Dr. John F. Russell, of New York City, at the Post-Graduate School and Hospital. Dr. Russell supports his patients by the administration of various fats in assimilable form; and by due attention to the condition of the *primæ viæ*, while they are submitted at the same time to frequently repeated feeding of appropriate kind. In this way he adds still

* See paper by Flexner in *Philadelphia Medical Journal*, February 14, 1903.

further to the capital *of resistance in the individual patient*, which should be our primary object to develop, foster, and maintain. Many of Dr. Russell's patients have recovered; many more, as the years roll on, and the number of his patients increases, will recover. Dr. Russell's ideas doubtless, are based somewhat upon the facts fully made known to us twenty-five years ago by the late Professor Austin Flint, *i.e.*, that pulmonary tuberculosis was a self-limited disease (taking all cases), in the proportion of one to fifteen, and even in the midst of unsanitary surroundings, which up to the present time, unfortunately, are so usually the lot of the poor. It is only rational, therefore, to believe that, with improved surroundings, and better care and treatment, a far larger proportion would recover.

Let us bear in mind always that what is eminently true in our warfare against tuberculosis—so far, at least, as the condition of homes and food supply is concerned—is equally true as regards the bettering physically, and indeed morally, of all children and adults, who are obliged to live in relatively confined and close quarters. Hence, as we look forward and upward, whatever tends to prevent or cure the "great white plague" tends to the improvement and, so to speak, regeneration of the race; and the bulwark is thus strengthened and maintained upon which finally depends the continued greatness of the people of the United States.

In our efforts, however, to improve or abolish the nests of disease, we must never lose sight of the broadest humanity for the sufferer. Do not make him a social outcast! He is already sufficiently stricken. Do not add to his misery! Many patients who are unquestionably phthisical may still do light and healthful work, and continue to improve physically, and, indeed, ultimately recover. Is not this fact of immense importance? And not merely because it keeps

hope and courage alive, but also because, from a material and purely economic standpoint, it saves much money to the State, which otherwise is morally bound to be the caretaker and supporter of the doubly afflicted poor.

But it is often proclaimed that such people—the tuberculous—are a constant imminent danger to the others, to the well ones. This is not true if the patients affected with pulmonary tuberculosis be properly instructed and disciplined in their homes and places of employment. It cannot be too strongly insisted upon and too widely circulated, that tuberculosis *is not contagious* in the ordinary sense of this word, or contagious in the same way the eruptive fevers, for example, are contagious, through a third person, or through the air of the patient's room. One may be as safe in the room of a phthisical patient as anywhere else, provided, of course, every rational and important precaution and observance be upheld to prevent infection. The disease is infectious and communicable. *That* we know; but once more, this statement does not mean that it is *contagious*. To no one more than to Dr. H. M. Biggs, Health Officer of New York City, are we indebted for insistence on this fact of primary importance. Further, it is demonstrated and proven by the experience of well-managed consumptive hospitals and sanatoria.

"Moreover, without these precautions, but with otherwise good sanitary conditions, the danger is by no means as excessive as is commonly stated and supposed by the average layman, whose fears have been aroused. In Great Britain and in this country, so far as statistics are available, the mortality from tuberculosis had steadily diminished with the improvement of the standard of living and better sanitation, long before the general recognition of the germ and the present agitation for the special prophylaxis of the disease."*

* "The Consumptive's Crime." Editorial in *Journal of the American Medical Association*, November 15, 1902, p. 1259.

Viewed differently, what do we see? The crudest expressions of dire ignorance on the one hand, and extended inhumanity on the other. People who have a foolish, unreasonable dread, become immediately unreasoning, unkind, inhuman, un-Christian. In certain of our States and territories they have wished to enact laws to prevent consumptives from entering their borders. The National Government has even been requested to prevent consumptives from coming to the United States from foreign countries; and only so far back as 1901 the Treasury Department of the United States decided to classify pulmonary tuberculosis with dangerous contagious diseases, and to exclude all consumptive emigrants from entering the United States. Thanks to the intelligence, broad-mindedness, and, above all, the humanity of the medical profession, this order was strongly opposed. Thus far, unfortunately, their laudable efforts have remained without effect upon the powers that be.

On February 20, 1903, I received a letter from the Commissioner of United States Immigration Service that "the statute is enforced in accordance with the opinion" expressed by the Surgeon-General of the Marine Hospital Service, *i.e.*, that "tubercle of the lung is a dangerous contagious disease."

In the Adirondacks, where formerly consumptives encountered only affection, love, care, attention, sympathy, in many instances they are now almost outlawed at times from getting proper shelter and food, and simply because the "poor blind ones" imagine they will contract a terrible disease by reason of contact. This leads me to say, what I believe to be very important, that after all hygienic rules are obeyed and all precautionary rules laid down and insisted upon to protect the healthy, and also to prevent reinfection of the diseased, it is essential among the poor to provide proper disinfectants, spit cups, and paper napkins for sputa. In the outline of

home treatment in the new Phipps Institute this rule of action on the part of physicians or caretakers of the poor is duly and forcibly emphasised.

Finally, the broad statement still remains true, that without a susceptible soil no tuberculosis will develop in the vast majority of cases. Witness a little experience of my own. I served thirteen years in the outdoor department of the New York Hospital, where I had the class either of heart and lungs, or throat and nose. During that time I had three or more assistants at different times, and several students. I or my assistants passed at least two hours three times a week in the room where the patients were examined, treated, and prescribed for. In no instance that I recall was anyone amongst my assistants or students (of course, including myself) known to have contracted tuberculosis, and certainly in no instance was our attention directed to the room of the New York Hospital as being the source and origin of the disease.

So far as I know, at no time in the thirteen years referred to above was the room where I examined and worked over my cases ever thoroughly disinfected in accord with the notions that we now possess of the meaning of the term. Of course, patients coughed, expectorated, and frequently tuberculous sputa reached the floor, dried up, and were wafted freely later to the respiratory tract of us all.

On the other hand, with a susceptible soil the *development of the disease is very largely preventable*, always supposing that we insist upon the observance of rules, with this object in view, which we know and believe to be necessary. Shall we rid ourselves entirely of pulmonary phthisis? Perhaps not very soon, in view of all the numerous bad conditions of modern life, especially in our great centres of population and among the very poor, who are obliged to start in life being the

possessors of that hereditary susceptibility to disease which proceeds from one or more generations, probably of corroding care, unrelaxed labour, lack of proper lodgings, food, air, and sunlight. But with improvement, amelioration, a far better state of affairs is sure to come. It has already come—in small measure, it is true—thanks to noble, generous, sustained, self-sacrificing, almost constant effort on the part of physicians and laymen within and without our Boards of Health. The Utopian idea of complete banishment and destruction of tuberculosis from our midst may not come—indeed, it cannot come—in a day, or even in years; but eventually we hope, we trust, we do believe, it will be true, and our earnest, devout prayer shall be answered.

Suppose this to be an "*Ignis fatuus*," as some may call it, we may even then at least hope that "probably, in future years, tuberculosis may be a comparatively rare and negligible ailment; but if this is to be, it will be through rational and humane methods, and not reckless exaggeration and stimulation of insane public fears, with their natural result of brutal inhumanity to the unfortunate."*

To show to what lengths this inhumane spirit, even in our profession, may go, I have only to cite the writer of an article lately published in one of the leading New York medical weeklies,† who appears to charge many consumptives "with a deliberate criminal tendency to spread their disorder."‡

To show the other side of the picture, and the one we would dwell upon, believe, and know to be true, I will cite from an article in the current issue of *Charities* (February, 1903): "There is at present," the article states, "no other disease

* *Journal of the American Medical Association*, November 15, 1902, p. 1259.

† *New York Medical Journal*, February 8, 1902, p. 238.

‡ *Journal of the American Medical Association, loc. cit.*

which is receiving so much attention at the hands of social and philanthropic workers. One reason may be that its cause is so well defined, and the methods whereby its spread can be prevented are so simple, that they may be easily grasped by the public. There is reason to believe that within a comparatively short time the United States will have as complete an organisation for the prevention of tuberculosis as any to be found in Europe."

To my mind, tent life is the perfect life for consumptives or those threatened with the dread disease, for in this way, and in this way alone, may they keep their lungs filled all the time with the best air possible, and by adoption of this method of treatment, we have a guarantee of cure in certain cases, where it appears to be almost essential, if this most desired result is to be attained. For this reason I believe, independently of the questions of less expense and larger numbers provided for, the New York Board of Health has wisely determined to adopt the method of tent treatment of the consumptive poor, in the incipient or primary stage of disease, whose cases it may be able later properly to care for.

No doubt, also, the amount of exercise, judiciously proportioned in individual cases, which to many a camp life almost necessitates, is additionally a reason why tent life is an ideal life for these sufferers. Keeping the tent "ship-shape," or keeping the camp cleanly, orderly, attractive, is surely useful and beneficial work for them. Their minds are agreeably occupied, and their bodies freshened and strengthened in performing the tasks, with this object in view, duly assigned to them.

Except in the febrile exacerbations of the disease, or in cases of extreme weakness, there are few instances in which tuberculous patients will not obtain distinct advantages from this mode of life over any other, provided, of course,

the tent or camp life is followed in a desirable locality and with ambient surroundings in every way hygienic.

Latterly, Dr. A. Mansfield Holmes* called particular "attention to the essentials of an ideal tent cottage, and gave rules for governing tent life." . . . . "A model of the tent cottage adopted by the Rocky Mountain Industrial Sanatorium was exhibited" by him before the Mississippi Valley Medical Association, "showing improved methods of construction and ventilation."

DISCUSSION.

Dr. FREDERICK I. KNIGHT (Boston): While sanatorium physicians are perhaps the proper ones, with their statistics, to defend the sanatorium treatment, there is no doubt but that tuberculous patients may recover under all conditions, whether treated or not treated; many of them have recovered in my practice under the most disadvantageous circumstances, with no proper hygiene or care of any kind. Of course those cases are comparatively few. Others have recovered under old-fashioned treatment, but I do not hesitate to say that far more, very many more, have recovered under the proper modern treatment, which we call sanatorium treatment. It is not necessary for a person to be in a public institution, but it is very important for him to be away from home, if possible, particularly if he lives in a rigorous climate. He can be away from home, for instance, in a private house at Asheville or at Saranac Lake, and be treated practically on the sanatorium plan; but he must be away from home, and I have always advised a patient, even if living in a good climate, to go out of his own home if he wished to be treated to the best possible advantage. That is very much more true though in the case of a rigorous climate. It is impossible in New England to make a patient live on the piazza, to live out of doors all day long as they do in the Adirondacks, for instance. He will do it there because everybody else does it. But it is different in New England; it necessitates his being alone all day long, and he would not do it; he runs in to the furnace or stove, or whatever it may be, because the rest of his family is there. So I say that the home treatment cannot be carried out so satisfactorily in a cold climate. Now in regard to

* *New York Medical Journal*, February 21, 1903, p. 346.

tents. I never saw a tent that was comfortable in summer; it is too hot with the heat of the sun, and in the winter the air must be foul. I do not see how we can heat and ventilate a tent in cold weather so that the patient has pure air.

Dr. E. O. Otis (Boston): Dr. Robinson seems to disparage, I might say, the private sanatorium for paying patients. There are two points, I think, that it is well to bear in mind in this connection with regard to private sanatoria. Dr. Knight has just referred to one; that is, the control of the patient. You may have a patient who could command any amount of money who lives in the country, who can turn his whole house into a special sanatorium, and still you may not be able to maintain absolute control of that patient, which is one of the most important points in the sanatorium treatment. I had an experience of that sort this very last year: the patient was wealthy, the house was in the country, it was on a hill, had verandahs on all sides, and every condition so far as material resources were concerned for good treatment; but the husband of the lady declared that she could never be properly controlled, and consequently she was sent to a paying sanatorium, where she is recovering. The second point I desire to make is this: the educative influences of the sanatorium treatment. In Massachusetts we are experiencing the great value of the teachings of the cured patients, the graduates of Rutland, upon the community. Is it not as important that these paying patients should give us that influence upon the class of people with which they are brought in contact? It seems to me this is a very valuable and important matter to be kept in mind. One thing further. Dr. Robinson has referred to the cruel and inhumane treatment accorded in many cases by the unreasoning fear of others in regard to this disease. I think that the profession itself is largely to blame for this. I do not know of any other one thing that has done more perhaps to create that undue fear than the signs which we put up in all of our street cars, and at our stations and many other places, against spitting. That is all right, and I believe in it, but it seems to me at least inconsistent to have a large sign with regard to spitting on our street cars, and not to pay any attention to the matter of pure air and ventilation. As a rule the ventilation in our street cars in the winter season is simply atrocious; and should we not now turn our attention to this crying evil as one of the direct means of preventing tuberculosis, having abated the spitting nuisance?

Dr. S. E. Solly (Colorado Springs, Colo.): I fully agree with what Dr. Knight has said about sending consumptives away from home. Old Horace wrote that those who travelled across the sea changed the sky but not their spirit; but in the case of invalid travellers at least, this is not true. I am sure that when a man is stricken by

a chronic disease a change is valuable, even if it is only a few miles distant. Not only from a climatic standpoint, but because of getting into new surroundings his interest is aroused, and with the elimination of the monotony of an invalid's life at home, comes a change of spirit and a renewed impulse to fight for health. With reference to the proposal to build a tent city for the poor in the outskirts of New York, while residence in it will be much better for them than in their unsanitary crowded homes, and far better than keeping them circulating around the general hospitals, yet it would be still better to put them in wooden huts. These huts should consist of a single room, with a porch on the south side, on which the patient can sleep and sit, while the room, with a small stove in it, would give them a warm place to wash and dress in and afford shelter from storms or heat. These, if built in rows facing south, can be constructed for about $150 a piece, while a properly constructed tent will cost as much as $100, and cost more for repairs. The chief objections to a tent are that changes of temperature readily penetrate its walls ; on the other hand, the wall of a hut can be made with an air space, which will largely protect the inmate from feeling such variations. During the winter a tent is generally too cold at night in severe weather. Strange as it may be, yet it is true that a person feels the cold much less when sleeping on an open porch than in a tent or room. During cold stormy days, when the patient is confined to his tent and has to have a lighted stove, he bakes on one side and freezes on the other, his toilette is made with difficulty and distress, while bathing is apt to be postponed. In summer the early morning light, as well as the heat and the flies, are often very trying. While there are well ventilated tents, yet they are more often close and stuffy. In a sanatorium the example of the other patients following the rules of health is an incentive to right living, whereas in the home the invalid experiences the impulse to follow the life of the other members of the family, and feels lonely and deserted if forced to do otherwise. The objection is often made by invalids to entering a sanatorium that the society of sick persons depresses them, but if they are finally induced to go to a well conducted sanatorium, this prejudice quickly vanishes and it is supplanted by a spirit of hopeful cheerfulness.

Dr. DELANCEY ROCHESTER (Buffalo) : That these cases should be sent away from home for treatment is no doubt true ; but, unfortunately, the vast majority of the cases that come under our observation are among the poor, and it is absolutely impossible for them to go away, and then we have to treat them at home, and here comes in very well the suggestions that Dr. Robinson has made in his paper. Dr. Knight says that the rigorous climate makes it impossible for outdoor treatment in many places. This is true only to a limited

extent, I think. In Buffalo we have a very bad climate for cases of tuberculosis, high and severe winds, especially during the winter. Moreover, we have less sunshine there around the lower lake region than in almost any other part of the United States, and still I have had patients, who, when I explained to them the very great importance of living out of doors, have followed instructions, lived out of doors, slept on verandahs, and have improved, and some of them recovered. Unfortunately, however, the vast majority of those who live at home have not the verandah to sleep on, or any other suitable place, not even a roof to go up on to sleep ; they have to sleep in their houses, and now you are confronted with a proposition different from those that have been exploited. Now these are the practical facts. People who live in tenements cannot be treated in this way. What are we going to do now ? This is the time, I think, to compel them to go to the proper place of treatment, the sanatorium. I think this is an important part of the treatment of these cases. They cannot get well at home in dark rooms, and where many of the rooms open on wells, and some sleeping rooms having no windows in them at all. I know of a family at home, five in the family, and they lived in two small rooms ; the father had tuberculosis. I succeeded in getting him to go to the Erie Co. Hospital, and he improved very much during the winter, and in the spring he went home, where he lived in his dark rooms without sunshine and without air to amount to anything, and could not be persuaded to go out of doors very much in the spring on account of the bad weather and particularly high winds. His tuberculosis increased, and three of his children developed tuberculous glands in their necks within four months. Now there is a condition that is very difficult to meet unless we have the power to compel cases to stay in sanatoria until it is safe for them to return home.

Dr. THOMAS DARLINGTON (King's Bridge, N.Y. City) : The physician in handling these cases has four duties, namely, his duty to the family of the patient, the patient himself, and the community and neighbourhood to which he considers removing this patient. In regard to this matter of removing patients, and of keeping them in tenement houses, take it in the city like New York, for instance, which has a large cosmopolitan population and where a great many people (30,000) live in lodging houses, and where 25 per cent. of these go to bed every night with their boots on ; and we talk about ventilating these rooms, especially in a winter like last winter with no coal. It is an absolute impossiblity to get fresh air into the tenement houses in New York. It is like trying to control the vice of New York City ; you cannot do it. The only way to do with the vast majority of these tenement house people is to remove them from the city ; and how

is that going to be done? You cannot educate them up to it. I have tried in one hospital for years to educate these people up to spitting in cups. They only do it so long as they are watched, but when left alone they expectorate on the floor. The majority of the people who have tuberculosis in a city like New York are uneducated, and unwilling to do anything to comply with the laws of the city; and I do not think, notwithstanding the ground that Dr. Robinson takes regarding the contagiousness of tuberculosis, that anyone at this date would be willing to say that it is not important to look after the sputa of these patients, and I think that it is a good thing that we have signs up in our cars, even though it frightens the people. Now, we have a difficult time in New York; just as soon as we want to remove the patients from the city, the Legislature passed a law that no consumptives should go to any part of the States without the consent of the Board of Supervisors of that county. And they talk about erecting a colony of tents in New York for these cases. There is no room in the city, and they cannot get out of it. This is for the poor people. Of course it is all very well for those that we wish to send to health resorts. I believe in sending most of our patients away to such places as Colorado; get them where they can have fresh air, &c., and no doubt they will get well. But what are we going to do with the rest of the people? Are we to leave them in their dark rooms with their families, possibly a large family which the mother supports by washing, &c.? These are the vast majority of the cases. It will not do to simply agree for tenement house reform, and especially to talk about fresh air, when we have the rapid transit with its cars vastly overcrowded every night and morning, and when we must breathe bad air. It would be all very safe, provided we could carry out the things which the doctor speaks of; but I feel that that is an absolute impossibility. And as for the question as to where we shall remove these patients, we also owe a duty to the community to which we take them. I have had a little experience with that recently with some people who wished to remove up in my neighbourhood, and bring up about forty consumptives—a place for the dying, they said. They could not take them out of the city, and they wanted to get them out of the tenement houses, and so they brought them up to our neighbourhood, where there were a great many people who now complain because the value of their property has decreased fully one-half. So the question arises, have we any right to injure the well and healthy in this way? This is another consideration.

Dr. CARROLL E. EDSON (Denver): It seems to me that in the present condition of public fear and professional enthusiasm in regard to the contagiousness of tuberculosis, with all our bacteriological

study, &c., we have taken the view that the tubercle bacillus is about the same size as a boa constrictor. The sputa are the only sources of danger from tuberculous patients. As Dr Darlington says, the majority of this class of people in the cities do not want to be clean. Tenement house reform puts in enamelled bath-tubs in tenement houses. The same way with the hygienic methods. We build our sanatoria with rounded corners, and the people get the idea that unless they can have these elaborate methods, these marble wall sanatoria, under their control that they cannot do anything with the problem. We have got to come down to the practical. They cannot comprehend our knowledge; we only scare them, and cause them to overlook the simple methods of treatment, which are productive of the most good. If we cannot be hygienic, let us be as hygienic as we can.

Dr. R. C. NEWTON (Montclair, N.J.): All this reminds me of the cattle inspector who visits the dairy, and finding tuberculous cattle, orders them to be killed, and then goes away. The man that owns the cattle then buys others to replace them, but buys inferior cattle. The next year the inspector orders more of the dairyman's cattle to be killed and goes away, and the dairyman buys more cows of a still lower grade; and so on, the local conditions and the state of the herd getting worse all the time. No proper effort is made to correct the unhygienic surroundings, which are probably the true source of the infection. In the same way, it is of very little use to pick out, here and there, a very good tenement house man, who wants to be healthy, and take him off somewhere; nor in occasionally putting in the "marble bath-tub." By redeeming a small percentage of those that are already consumptive, one does some good; but we are attacking the problem at the wrong end. It is not chimerical nor absurd to insist upon better hygienic conditions in tenement houses, and to teach the poor and the rich how to live so that they may be able to resist the infection of tuberculosis. That infection is practically universal; and the fact that the majority of us escape it makes it entirely reasonable to suppose that many thousands more would escape it, if we could improve conditions of living that every one knows are inexcusably and even criminally bad.

Dr. RICHARD A. CLEEMANN (Philadelphia): It seems to me that the problem of taking care of the tuberculous poor and the difficulties in the way are much exaggerated. They are not as numerous as they seem to be. Of the 2,500 in Philadelphia to-day, 500 are able to take care of themselves, thus leaving but 2,000 to be taken care of by the city; this is not a great problem. It seems to me that if the proper spirit is developed the solution of this question is simple, namely, to get these people out of their homes and under the care of some institution controlled by the State. A million dollars

a year is very little for a community to expend, which spends thirteen or fourteen millions annually, and I think that this sum would be sufficient ; and I trust that this will eventually be the outcome of the problem, that the cities will reserve in their neighbourhood a lot of ground that is not covered with houses, especially in the city of New York. There is Staten Island, any large tract of ground there would do, on which we could put not a tent city, but a barrack city ; and there are other places in the neighbourhood of New York which would do for the purpose.

Dr. R. G. CURTIN (Philadelphia, Pa.) : I have for a long time been considering the attitude of the profession and the public on the contagiousness of tuberculosis, and last spring I read a paper on the subject, and made a number of statements which may not be inappropriate now. In the first place, is tuberculosis as contagious as a great many physicians appear to make it ? I do not think so. I know of one man with an ulcerated condition in his lungs, who for six years was constantly in a ward of from twenty-eight to thirty-four consumptives, and yet that man in all that time had not a single tubercle bacillus in his sputum, although it was examined hundreds of times, and after his death the tissues failed to show anything like tubercle bacilli in them. This man lived in this atmosphere for six years with apparently a very good soil in which to plant the bacilli, and still they were not planted thereon. There is another point which I wish to call to the attention of the profession here : that the majority of the doctors who belong to this Association who have been affected with tuberculosis have gotten well while they were attending just such cases, generally, of course, with a change of climate. But those of us who live in a tuberculous climate and large cities, it seems to me, would have no excuse for living if it is so awfully contagious. At the present time, especially in the large cities, the consumptive is so much avoided that really life is made miserable for him. You go into the private family, and he is relegated to the third storey back room, and the family kept away from him. Some time ago in a street car in Philadelphia a man got on the car, he had a hollow, racking cough, and was very pallid, &c., and several ladies who were riding on the same car got off and waited on the corner for the next car. They were afraid to ride with this man ; and the fact is, that I believe that at the present time cases of tuberculosis are more studiously avoided than lepers.

Dr. CHARLES L. MINOR (Asheville) : What has just been said about the fright so prevalent concerning tuberculosis is very true, and I think that the trouble is largely due to the medical profession. We unquestionably are the ones who are to blame for the present attitude of the general public. We have educated them foolishly,

have been bad teachers, and now it lies with us to educate them in the right way. An intelligent doctor can educate his patients if they have confidence in him, and can show them the nonsense of this unreasoning fright regarding the contagiousness of this disease, and I think that this is one of our chief duties. We must keep them aware of the fact that it is transmissible, but assure them that it is nonsense to live in constant dread of its contagiousness.

Dr. THOMAS W. HARVEY (Orange, N.J.): A word as to the good influence of ventilation. While my home is one of the old health resorts of the East, it has also had for many years a large population of hat-makers, and twenty years ago these hats were made in small shops, poorly ventilated, and with all the worst conditions possible, dampness and lack of fresh air; the men that worked in them were very generally given to drink, and tuberculosis was prevalent. The hatters died of two diseases—chronic mercurial poisoning, called "hatters' shake," and tuberculosis. During the past twenty years the small shops have disappeared, ventilating processes have been introduced, so that the dust is removed, and to-day it is a rare thing to see chronic mercurial poisoning, and tuberculousis—although these people are living very much as they did before in the way of drinking—is no more common than it is among other classes of workers. I cannot give you the figures, but for a number of years I have watched them carefully in the death returns from my county, and the diminution is something very noticeable indeed.

Dr. R. H. BABCOCK (Chicago): As I understand the gist of Dr. Robinson's paper, it is, in reality, an argument against the establishment of sanatoria for the treatment of the consumptive poor of our great cities. I should like to point to the attitude of the Germans in this respect. What is being accomplished in Germany is the greatest possible argument in favour of the establishment of sanatoria for the consumptive poor. There is, of course, great difficulty in the way; but if we properly educate the charitable-minded people in our great cities and towns concerning the need of such institutions, their great value in preventing the spread of the disease, there should be no greater difficulty in getting sanatoria and hospitals for the treatment and segregation of such patients than in getting hospitals for surgical cases such as abound in every city, almost in every large town, in the United States. The dispensary treatment as described by Dr. Otis is the next most feasible point in the treatment of the tuberculous poor, and when we succeed in having not only such dispensaries as that doing the work that Dr. Otis is doing, but sanatoria in the neighbourhood of the great cities, and hospitals, then we have begun in the right direction, and until we do that we are lamentably behind the advanced countries of Europe.

Dr. BEVERLEY ROBINSON (New York): I should like to talk a good deal on some of the points brought out, but we have not the time to devote to this one paper; but I would like the permission of the President to make one or two points. There is a great deal in what the gentlemen have just said with which I agree, and much that I disagree with most absolutely. I am glad to see that my friend and colleague and former house physician, if you will allow me to say it, Dr. Minor, re-echoes my views exactly. The public have been put wrong, and I want the medical profession to put the public right again. This advance of so-called science, or even science, is given to making mountains out of molehills and of exaggerating the importance of things that have no real importance, and making out that we cannot accomplish certain good results without appealing to the charitable, broad-minded spirit of us all so constantly. Profession or not, men or women, we are all inclined to spend a lot of money for a very poor and inadequate return, in my humble judgment, when we sympathise with such movements. Sanatoria are doubtless all right for the few, but we cannot take care of the vast majority in that way. We must make our cities liveable, and we can thus get rid of a great amount of disease. Therefore once more, and in sitting down, I re-echo what Dr. Minor says. The medical profession is off, and it behoves the medical profession to think straight and do what I believe firmly to be the best for the vast majority of the poor who are suffering with tuberculosis.